

# Mathematical Reflections

## 4

**I**n this investigation, you used ratios and proportions to solve a variety of problems. You found that most of those problems can be expressed in proportions such as  $\frac{a}{b} = \frac{c}{x}$  or  $\frac{a}{b} = \frac{x}{c}$ . The next questions will help you summarize what you have learned.

---

Think about your answers to these questions. Discuss your ideas with other students and your teacher. Then write a summary of your findings in your notebook.

1. For each situation, write a problem that can be solved using a proportion. Then solve your problem.
  - a. The fraction of girls in grade seven is  $\frac{3}{5}$ .
  - b. Bolda Cola sells at 5 for \$3.
  - c. Sora rides her bike at a speed of 12 miles per hour.
  - d. A triangle is similar to another one with a scale factor of 1.5.
2. Write four different proportions for the problem you created in part (c). Show that the answer to the problem is the same no matter which proportion you use.
3. What procedures do you use to solve proportions such as those you wrote in Question 2?